

IMPLEMENTATION WORK GROUP

June 22 and 23, 2000
0830-1530

Kingstad Center
Portland, OR

Meeting Minutes
Version 1 – June 29, 2000

Attendees:

Jack	Bernhardsen	Pacific NW Security Coordinator	360-418-2956	jackbernhardsen@home.com
John	Boucher	KEMA Consulting	503-258-0182	jboucher@kemaconsulting.com
Douglas	Cave	BC Hydro	604-293-5802	douglas.cave@bchydro.bc.ca
Christine	Elliott	Northwest Power Pool	503-464-2804	chris@nwpp.org
Richard	Goddard	Portland General Electric	503-464-8495	richard_goddard@pgn.com
Bob	Harshbarger	Puget Sound Energy	425-882-4466	bharsh@puget.com
David	James	Avista Corp	509-495-4185	djames@avistacorp.com
Jack	Kelley	PRM	425-451-9123	jkelly@prmlp.com
Rich	Niska	Pacificorp	503-251-5183	rich.niska@pacificorp.com
Rick	Paschall	Pacific NW Generating Coop	503-288-4870	rpaschall@pngc.com
LeRoy	Patterson	Montana Power	406-497-4387	lpatter@mtpower.com
Deanna	Phillips	BPA/PBL	503-230-5164	dmphillips@bpa.gov
Vernon	Porter	Idaho Power Company	208-388-2850	vporter@idahopower.com
Chris	Reese	Puget Sound Energy	465-462-3055	creese@puget.com
Mike	Ryan	Portland General Electric	503-464-8793	mike_ryan@pgn.com
Norm	Stanley	PacifiCorp	503-251-5155	norm.stanley@pacificorp.com
Ralph	Underwood	Seattle City Light	206-706-0240	ralph.underwood@ci.seattle.wa.us
Jim	Vinson	BPA/TBL	360-418-2011	javinson@bpa.gov
Don	Watkins	BPA/TBL	360-418-2344	dswatkins@bpa.gov
Gary	Wright	Sierra Pacific Power	775-834-3282	gwright@sppc.com

Calendar:

May 23, 2000	0830 - 1230	Work Group Meeting	Kingstad Center	✓
June 1, 2000	0830 - 1700	Work Group Meeting	Kingstad Center	✓
June 2, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	✓
June 9, 2000	0830 - 1530	Work Group Meeting	Ditmer Control Center	✓
June 16, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	✓
June 22, 2000	0830 - 1700	Work Group Meeting	Kingstad Center	✓
June 23, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	✓
July 14, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	
July 21, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	
July 28, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	
August 4, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	
August 11, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	
August 18, 2000	0830 - 1530	Work Group Meeting	Kingstad Center	

Assignments:

Action Item	Responsible Parties	Status
Update consensus assumptions list to	John Boucher	Due 7/14/2000

cover all FERC 2000 characteristics and functions		
Define issues concerning AGC hierarchical operation including identifying responsible work groups and clarifying the questions going to these groups. Recommend answers to issues assigned to the Implementation work group.	Bob Harshbarger (lead), Deanna Phillips, Mike Ryan, Don Watkins	Completed
Define issues concerning metering including identifying responsible work groups. Review IndeGO meter specifications, compare with Desert Star and update as required.	Ralph Underwood (lead), LeRoy Patterson, Vern Porter, Don Watkins	Completed
Define issues concerning technology requirements including identifying responsible work groups and clarifying the questions going to these groups. Recommend answers to issues assigned to the Implementation work group.	Don Watkins (lead), Bob Harshbarger, Dave Perrino, Mike Ryan	Completed
Define issues concerning organization and staffing including identifying responsible work groups and clarifying the questions going to these groups. Recommend answers to issues assigned to the Implementation work group.	Richard Goddard (lead), Jack Bernhardsen, Chris Elliott, John McGhee, Chris Reese	Completed
Create generic RTO organization chart for MISO and ERCOT to insert staffing levels. Fill in NYISO staffing figures.	Richard Goddard (lead), Jack Bernhardsen, Chris Elliott, John McGhee, Chris Reese	Completed
Complete assessment questionnaire for Avista, PGE, and BPA	David James (lead), Douglas Cave, Jon Fisker, Norm Stanley, Jim Vinson	Avista and PGE Portland Completed
Provide a 30 minute overview of IndeGO operations and staffing, including driving forces and short-falls.	LeRoy Patterson, Jon Kaake	Due 7/14/2000
Complete assessment questionnaire for remaining candidate centers	David James (lead), Douglas Cave, Jon Fisker, Norm Stanley, Jim Vinson	Completed
Define criteria for back-up control center. What, if any, RTO functions does it perform on a daily basis? Is it a full or a partial back-up (what functions?)?	David James (lead), Douglas Cave, Jon Fisker, Norm Stanley, Jim Vinson shared with Richard Goddard (lead), Jack Bernhardsen, Chris Elliott, John McGhee, Chris Reese	Due 7/14/2000
Establish joint operations planning team with Transmission Planning work group	LeRoy Patterson, Chris Reese, Don Watkins	Due 7/14/2000
Create draft agendas for conference calls with MISO and ERCOT	John Boucher	Completed
Create rough estimate of staffing and associated start-up and annual costs	Richard Goddard (lead), Jack Bernhardsen, Chris Elliott, John	Due 7/21/2000

including assignment to primary or back-up site. Create organizational chart with staffing numbers.	McGhee, Chris Reese	
Obtain rough estimate of cost to acquire and maintain control center facilities both primary and back-up.	David James (lead), Douglas Cave, Jon Fisker, Norm Stanley, Jim Vinson	Due 7/21/2000
Obtain rough estimate of cost to acquire and maintain communications, computer systems, and applications	Don Watkins (lead), Bob Harshbarger, Dave Perrino, Mike Ryan	Due 7/21/2000
Determine any metering or retail impacts on the budget and any outputs required to the Legal WG for the agreements.	Ralph Underwood (lead), LeRoy Patterson, Vern Porter, Don Watkins	Due 7/21/2000
Create bullet list description of operations and implementation as supporting back-up material for the budget.	LeRoy Patterson (lead), Jack Bernhardsen, Mike Ryan, Deanna Phillips	Due 7/21/2000

Summary of Consensus:

1. Note that in any case where consensus is reached that later proves inconsistent with decisions made by work groups responsible for a specific policy, such as Ancillary Services, then the Implementation work group will bring its consensus into conformance with those decisions.
2. The short list of candidate back-up sites are Avista (Spokane), Pacificorp (Salt Lake City), and SPP (Reno)

Highlights of Meeting (Agenda Attached)

I. Opening comments

a Discussion of next Tuesday's Filing utilities meeting

- 1 Discussion of RTO included transmission facilities

A Discussion of ramifications regarding included transmission facilities.

- i Operational, Market, Congestion, etc.
- ii Discussed examples of historical problems coordinating between different users and owners.

II. Preparation for Conference Calls with ERCOT and MISO Control Center Assessments

a Additions to questionnaires

- 1 Staffing
- 2 Metering

A Additional metering requirements

B Accuracy requirements

III. Task Team Presentation of Issues Assigned to Implementation Work Group and Questions Sent to Other Work Groups

a "A" Teams

1 AGC Hierarchical Control

A Discussed the Control area issues document

- i The RTO must have generator information relevant to reliable operation, plus additional information depending on specific market participation.**
- ii The RTO must verify ancillary service performance.**
- iii The RTO must get sufficient information to verify reliable operation for Security Coordination.**

2 Metering Operations and Retail Access

A No report

3 Technology Requirements

A Don discussed changes to the previous document

- i Changed the format that ranks functions and capabilities.**
- ii Added questions to capture issues previously discussed.**

4 Operations and Staffing

A Reviewed an organization chart for RTOW based on the NYISO and CISO.

- i Add additional detail and functions that are, or can be, outsourced.**
- ii This is for functional comparison purposes, not to set final numbers.**

5 Back-Up Control Center

A No report (shared with the technology and support staff work groups)

IV. Lunch

V. Report regarding Ancillary Services WG Concepts

a Reviewed Deanna Phillips' handout

b Discussion

- 1 Transmission users must be able to self-provide, purchase from market or acquire from the RTO as a 'provider-of-last-resort'.**
- 2 Verification and certification is a big issue.**
- 3 The transition (or end state) that allows participants to send their ACEs to the RTO and receive an energy return signal from the RTO was considered a poor transition, based on the discussion.**

c Recommendation: Remove, or allow non-control areas to participate in, the obvious benefits from being a control area, such as parking, hubbing and energy imbalance.

d Issues from last meeting.

- 1 Scheduling, system control and dispatch - RTOW
 - 2 Reactive supply and voltage control – self, 3rd party or RTOW
 - 3 Regulation and frequency response – self, 3rd party or RTOW
 - 4 Energy imbalance – self, 3rd party or RTOW
 - 5 Operation reserve – spinning – self, 3rd party or RTOW
 - 6 Operation reserve – non-spinning. – self, 3rd party or RTOW
- VI. Review of First Set of Task Teams for Additional Open Issues**
- a *Transmission Management, Maintenance Schedule Coordination, and Congestion Mgmt.***
- 1 Additional Issues – None.
- b *Transmission System Security***
- c *Ancillary Services Coordination***
- d *Billing & Accounting, Inadvertent Interchange, Settlement Functions, Market Monitoring***
- VII. “A” Team Breakout Sessions to Define Resolutions to Assigned**
- VIII. Friday’s session**
- IX. “A” Team Presentations for Consensus of Recommendations**
- a *Addressing Issues***
- 1 Metering Operations and Retail Access
 - A Metering should be sufficient for measurement and billing.**
 - i Retail Access will be administered by non-RTO entities. The RTO will provide transmission billing information to appropriate entities, but not bill retail customers. The RTO will have the capability, but not the obligation, to charge for these services if they exceed normal billing costs.
 - ii Action: Ralph will send the summary document to John for distribution.
 - 2 Technology Requirements
 - A Reviewed the new matrix.**
 - i Concern with sole sourcing vendors.
 - ii Modified this document and added systems.
 - iii Identify Systems that can be priced immediately and begin to identify sources for these systems.
 - iv Action: Don Watkins will send the modified document to John B.
 - 3 Control Area Issues (renamed from AGC Hierarchical Control)
 - A Don will forward the modifications discussed yesterday.**
 - 4 Operations and Staffing
 - A Discussed Issue List**

- i Many additions and changes were made.
- ii Action: Richard will document changes and the recommendations that were made. He will send these to John.

5 Back-Up Control Center

A Control Center Assessments

- i Reviewed the composite assessment sheet.
 - I Some changes suggested - add square feet to support staff and add potential lease cost for the facility
- ii Discussion regarding the location of the backup.
 - I Rank the control centers.

a Primary Backup:

Assumptions: The RTO facility must provide:

- redundant communications to major utility control centers with 99.96% availability that will support control of RAS, generation control and complete system visibility;
- a redundant power-supply with 99.96% availability;
- compliance with WSCC criteria;
- the ability to get needed wiring installed and maintained;
- appropriate ceiling height (10 ft or higher);
- the ability for all functions to be together in the primary control center;
- no common mode failure regarding a natural disaster (single event) between primary and backup centers; and
- reduced costs for required communications from the ISO center to nearest Electric Utility communications node.

b Discussion:

Munro is the preferred primary federal site rather than Dittmer by some of the meeting participants. However no change is being made with regard to Dittmer as the primary site.

With Dittmer as the primary site: the primary backup sites are ranked, in order of preference as follows.

- Spokane, Salt Lake City, Reno, Boise (control center is not available), Seattle, Vancouver BC, (both Seattle and Vancouver BC is in a common earthquake subduction zone with Portland), Butte (Travel concerns imply it can not be the primary backup, but it ranks well as a secondary backup), Trojan, Portland.
- Action: The IWG asked AVA, PAC and SPP to develop detailed costs for implementing the top three primary backup choices.

However, a traditional control center may not meet the technological requirements of the RTO, nor be necessary. In addition, using an existing control center may impose transition issues and raise costs. The IWG would like to consider additional options to meet implementation schedules and meet requirements, such as use of other available facilities.

B Issues associated with Dittmer

- i Existing computer software and hardware will likely not be able to handle RTO requirements.
 - ii The RTO will require much additional communication facilities and information beyond what is available at Dittmer.
 - iii The RTO must be independent of all participants. However, BPA's need to keep some infrastructure at Dittmer complicates the independence issue for the RTO.
- X. Assignments to Update Operations "Bullet" Drafts and Staffing
 - a See above

The next meeting will be Friday, July 14, at a location to be announced. PDX is more likely than the Kingstad Center. A plan for achieving the July 21 and August 18 milestones will be presented by each team along with progress to date and any critical issues that must be resolved for the July milestones.

**Implementation Work Group
Meeting – June 22 & 23
Agenda**

Thursday, June 22

Preparation for Conference Calls with ERCOT and MISO	0830 – 0915
Control Center Assessments	0915 – 1030
Break	1030 – 1045
Task Team Presentation of Issues Assigned to Implementation Work Group and Questions Sent to Other Work Groups	1045 – 1230

"A" Teams

- 1) AGC Hierarchical Control
- 2) Metering Operations and Retail Access
- 3) Technology Requirements
- 4) Operations and Staffing

5) Back-Up Control Center	
Lunch	1230 – 1330
Review of First Set of Task Teams for Additional Open Issues	1330 – 1500
“B” Teams	
1) Transmission Management, Maintenance Schedule Coordination, and Congestion Mgmt.	
2) Transmission System Security	
3) Ancillary Services Coordination	
4) Billing & Accounting, Inadvertent Interchange, Settlement Functions, Market Monitoring	
“A” Team Breakout Sessions to Define Resolutions to Assigned Issues	1500 – 1700

Friday, June 23

“A” Team Presentations for Consensus of Recommendations Addressing Issues	0830 – 1030
Break	1030 – 1045
“B” Team Breakout Sessions to Define Resolutions to Assigned Issues	1045 – 1215
Lunch	1215 – 1315
“B” Team Presentations for Consensus of Recommendations Addressing Issues	1315 – 1445
Assignments to Update Operations “Bullet” Drafts and Staffing Document	1445 – 1530

